University of California at San Francisco

Integrated Biomarkers to Characterize Breast Cancer Risk

Objective

Develop, validate and integrate blood– and tissue–based novel biomarkers to characterize the risk of getting and having breast cancer

Program Description

Scientists will use a carefully collected and annotated bank of specimens to critically evaluate and compare a series of assays and lead markers to determine whether a clinically useful tool can be developed to augment mammography and ultrasound for the detection of breast cancer.

Specific Aims

- To collect and incorporate molecular, radiologic, and demographic data into a model for predicting breast cancer using a retrospective cohort of carefully curated specimens
- To discover new biomarkers by investigating novel methylated genes, plasma RNA sequences, and serum protein peaks from mass spectroscopy and to assess a test panel to determine its predictive value
- To collect biologic samples from a prospective series of patients undergoing definitive diagnosis for breast cancer and put through the battery of assays that combined to yield the highest predictive value in the retrospective series

Contact Information

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